

Ethnoarchaeology of Ancient Falconry in East Asia

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1. Introduction

Falconry/ hawking culture used to be practiced world-widely recognizable not only as an evidence of deep human-raptor interaction for centuries, but also as a cosmopolitan cultural heritage in East Asia. According to ancient petroglyph in northern Altai (Khbarev, Zebeendorj, and Yacobson. 2005), the outstanding legacy of falconry or hawking was presumably invented by nomadic pastoralists about 3,000 years ago somewhere in central Eurasian highland (Soma. 2012a). In fact, Altaic Kazakhs (or previously in Kyrgyz) have still kept eagle tamed falconry for centuries as own fur-acquisition, winter recreation, and ethnic identity (Battulga. 2007; Баттулга. 2011; Soma. 2012b, 2012c, 2012d, 2012e, 2013a, 2013b).

On the other hand in sedentary communities, it is safe to emphasize that chance and opportunity for engagement with natural world is considered as indeed a true recreational value that falconry has been fascinating us. In fact, there is a huge population of raptor-owners in USA estimated about 4,250 falconers; and in the UK estimated about 25,000 hawk owners (British Falconers' Club. 2007). According to analyses in the Conservation Committee Report (1977: 364), use of raptors in falconry will not give any negative effects on raptors population, especially concerning peregrines. Kenward (2009: 190) also points out some contributions by falconry that wild peregrine populations tend to be highest in the countries with the largest number of actual falconers. Besides, abundance of eagles is considered as one of indicators of ecosystem healthiness (Machangea, Jenkinsa and Navarro. 2005). On the contrary to such positive minds surrounding falconry culture in America and Europe, modern Asian falconry in Japan, Korea and China had been almost abandoned and now no more linking with any socio-ecological practice nevertheless the origin is much earlier than Europe. The reason of such discontinuity of falconry culture perhaps ascribes to a lack of inevitable socio-ecological adaptation into sedentary world from its beginning.

In this sense, this paper goes through with a brief introduction about cultural history of early falconry in East Asia. Especially, analyses in archaeological depictions of falconer figures unearthed from China and Japan combining with contemporary ethnography of Kyrgyz and Altaic Kazakh falconry, this paper will answer risen questions 'when was it begun?' and 'why was it discontinued?'. Eventually, substantial reformations and differentiations from "nomad's eagle falconry" to "sedentary game falconry" will become central concern in this article.

2. Material and Methodology

The research method is based on ethnoarchaeological format. Firstly, archaeological CASE are collected and assembled from report papers, books and museum sources in China and Japan. Secondary, anthropological and ethno-ornithological interpretation will be given with reference to ethnography in contemporary Kyrgyz and Altaic Kazakh falconry. This ethnographic research was designed with concentrated participant observations and semi-structural interviews, carried out at the Lake Issyk-Kul Province in Kyrgyz (May~June and October~November 2006), and Bayan-Ulgii (Bayan-Ölgii/ Баян-Өлгий) Prefecture in Western Mongolia (July 2011~January 2013).

Through taking a contingency plan, this paper attempts to lead deeper understanding of actual and/or conceptual boundary between “nomad’s eagle falconry (for actual hunting)” and “sedentary game falconry (for sport/ recreation)”, which experienced reformative process and adaptation to fit into sedentary world.

3. Result

3-1. Ancient China (The Later Han Dynasty: A.D. 25~220)

A figure of early falconer was firstly seen in the bronze belt buckle casted in northwestern China around 3rd century B.C. (Soma 2012a). During the Later Han Dynasty period, falconer motifs were gradually seen in decorative carvings on the stone wall (画像石) of high class’s graves, especially in Shantong 山東 and Shaanxi 陝西 areas from A.D. 2nd century. Below, 5 stone carvings (CASE 1~5) indicate a presence of falconry and falconers during the Later Han Dynasty period.

CASE 1: “*Shoulie, Gōngniu-Didou Huaxiang* (狩獵, 公牛抵鬥畫像)” (circa. A.D. 89-146), excavated from Zoucheng, Shandong region (山東省鄒城市郭里鄉黃路屯村), shows two human figures with a raptor on his left arm (fig.1) [Zhongguo Huaxiangshi-Quanji vol.2 (ZHW 2: 中國畫像石全集). 2000: 78-79]. In addition, a right side figure seems to release a huge bird to a rabbit. Asides, other raptors and probable quarries or game birds (pheasant?) are well expressed to create real scenery inside the hunting field. Falconer figures wear a Chinese tunic with a crown of which costume indicates Chinese high class. This picture represents a scene of entertaining sport falconry at a garden or palace with subordinates.

CASE 2: “*Shoulie, Cheqichuxing Huaxiang* (狩獵, 車騎出行畫像)” (A.D. 89-189)



Fig.1 “*Shoulie, Gōngniu-Didou Huaxiang* (狩獵, 公牛抵鬥畫像)”

found at Weishan, Shandong (山東省微山縣兩城鎮), also show a concrete figure of three falconer participants in hunting column (fig.2) [ZHW 2. 2000: 40-41]. A huge raptor, presumably Golden Eagle size, is perched on his right hand. This style is defined apparently as a nomadic pastoralist's way. They are also in trousers with long boots. In addition, there are four hunting dogs in former part of column. Actually, two of them are assaulting in real hunting motion on their prey. Their slender body and constricted waist are highly probably similar to a sighthound type dog on the analogy of *Saluki* or *Taigan (Kyrgyz Bolzoi)*, and Mongolian native species. Golden Eagle falconry and beaters by sighthounds should be originated to nomadic pastoralist's way. Eventually, this carving impresses that participant falconers are "Huren 胡人 (outer tribes surrounding ancient China)" hunters who had excellent skills in taming eagles and operation of eagle falconry in cooperation with sighthounds as beaters.

CASE 3: "*Chuxing, Xianfu, Lewu Huaxiang* (出行, 獻俘, 樂舞畫像)" (A.D. 89-189) depicted two horse riding falconers galloping with two birds (fig.3) [ZHW 2. 2000: 4-5]. This picture may confirm a presence of horse riding falconry in ancient China. The style is highly pastoralist's way for hunting even in nowadays. In addition, the shape of raptor's rectrix (tail) is in a concave-ended shape which seems to be falconiform type, not a hawk type. Bent wings of a front bird also belong to a falcon type raptor. From this carving, both hawk and falcon types might be tamed for hunting birds in this period.

CASE 4: "*Yulin Chenxing Mumenmei Huaxiang* (榆林陳興墓門楣畫像)" (circa. A.D. 25-220), found at Yulin city Shaanxi Province, also depicted a scene of actual falconry on horseback in the middle of prey animals running about (fig.4) [ZHW 5. 2000: 4-5]. A human figure wears a Chinese tunic with a crown. In fact, horseback falconry might also be carried out not only by nomadic animal pastoralists, but also by high class people in ancient China. There are a large number of hunting participants including horsemen, beaters, net-holders, cart-driver, etc, to intimidate prey animals. Such a massive cavalcade should be one of typical styles of the royal-scale falconry in ancient Asia.

CASE 5: "*Kongmen-Dizi, Shoulie Huaxiang* (孔門弟子, 狩獵畫像)" (A.D. 25-220) is

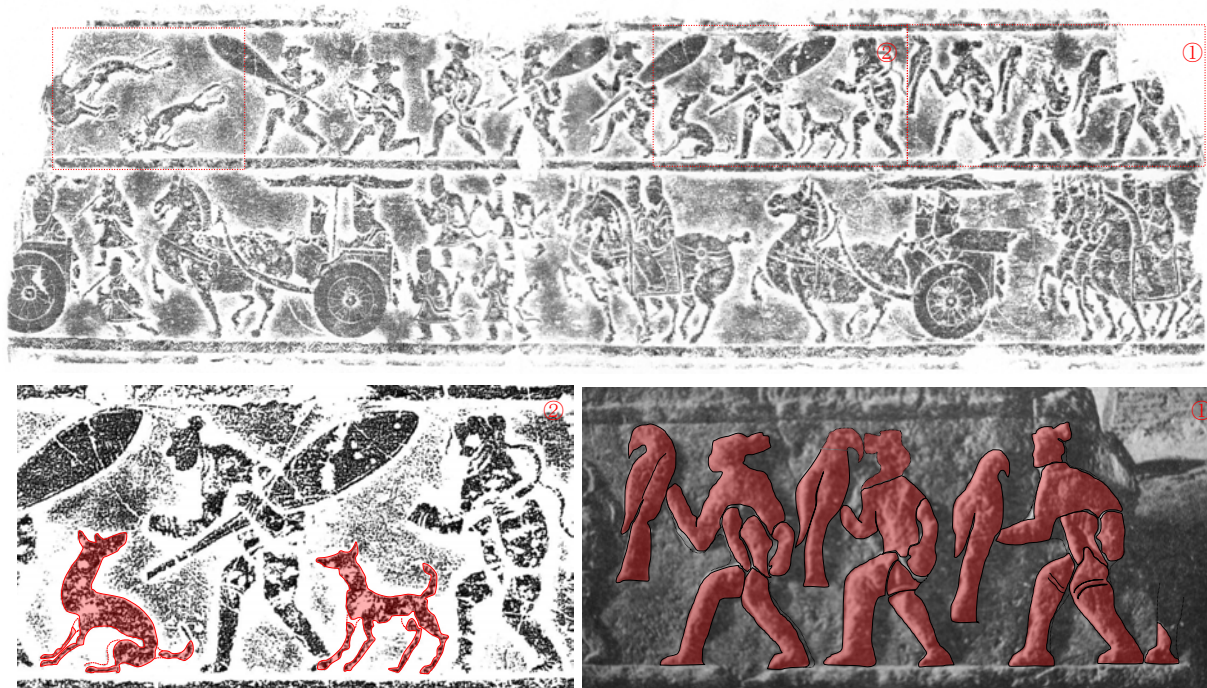


Fig.2 "*Shoulie, Cheqichuxing Huaxiang* (狩獵, 車騎出行畫像)"

an additional example that describes a scene of display falconry in front of falconer's master on the chair (fig.5) [ZHW 2. 2000: 58-59]. One of two birds is going to annihilate a small prey. On the left side, flap-eared dogs are also depicted on both sides of carving.

3-2. Ancient Japan (Kofun Period: ca. the End of 6th Century)

Japanese falconry is thought to start around 4th century on behalf of cultural contact with the royal family of Kudara 百濟 (Paekche; ancient Korean kingdom). However, a concrete figure of falconers was initially materialized from ca. 6th century in the Kofun Period 古墳時代 of Japan. Archaeological vestiges are only four haniwa figurines available (CASE 6~9), but precious for describing ancient falconry in Japan.

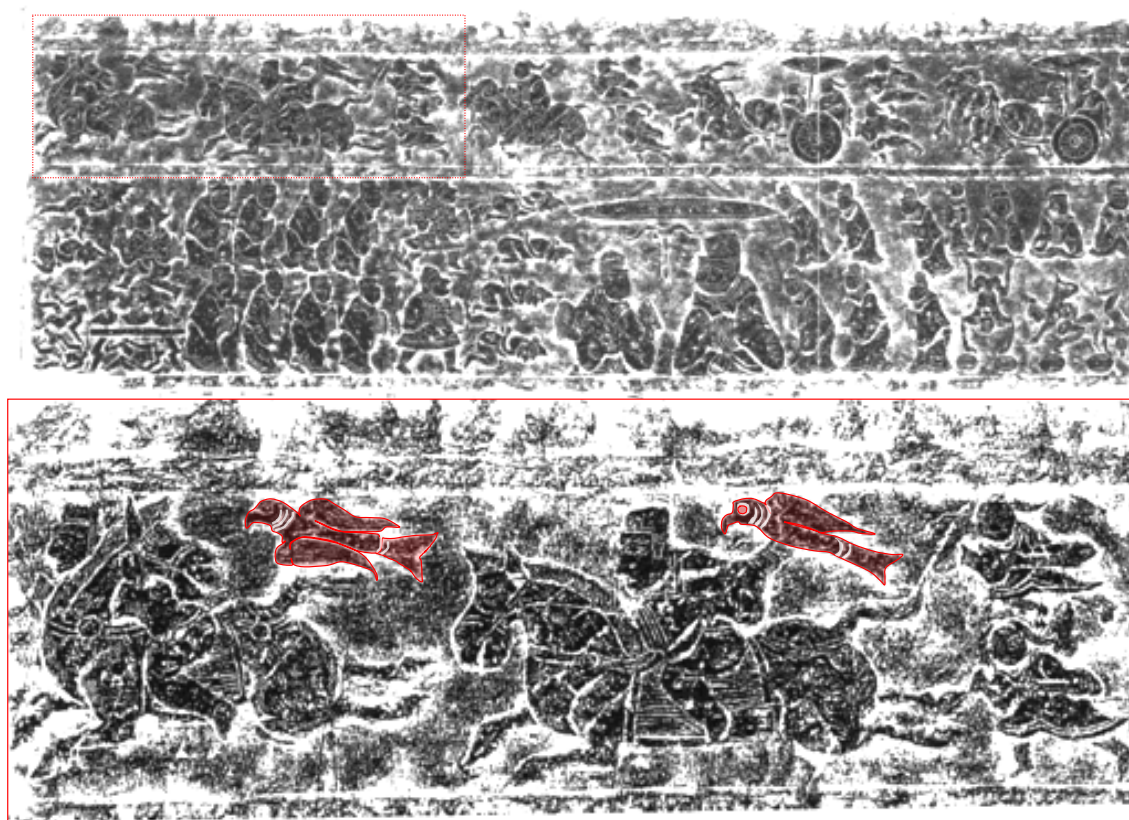


Fig.3 “Chuxing, Xianfu, Lewu Huaxiang (出行, 獻俘, 樂舞畫像)”

CASE 6: *A falconer haniwa figurine*, excavated from Okuman-yama Kohun Mound オクマン山古墳 (脇屋 1 号墳) at Wakiya, Ohta City, Gunma Prefecture, is one of perfect models describing an earliest falconer (fig.6) [Gumma-ken Ota-shi Kyoikuinkai 1999: 8, 13-14, 19].

CASE 7: *A falconer haniwa figurine*, also found from Huchina, Sakai-cho, Sawa-gun, Gunma Prefecture, just 8km west from Okuman-yama Kohun Mound, is also produced in a similar manner with the Okuman figurine (fig.7). Distinctively, the bird of this figurine is facing on opposite direction which is unusual even in actual falconry.

CASE 8: A falconer haniwa figurine, in a collection at The Museum of Sitenou-ji, was also manufactured in a similar manner to previous two examples (fig.8). However, unearthed site location is unknown.

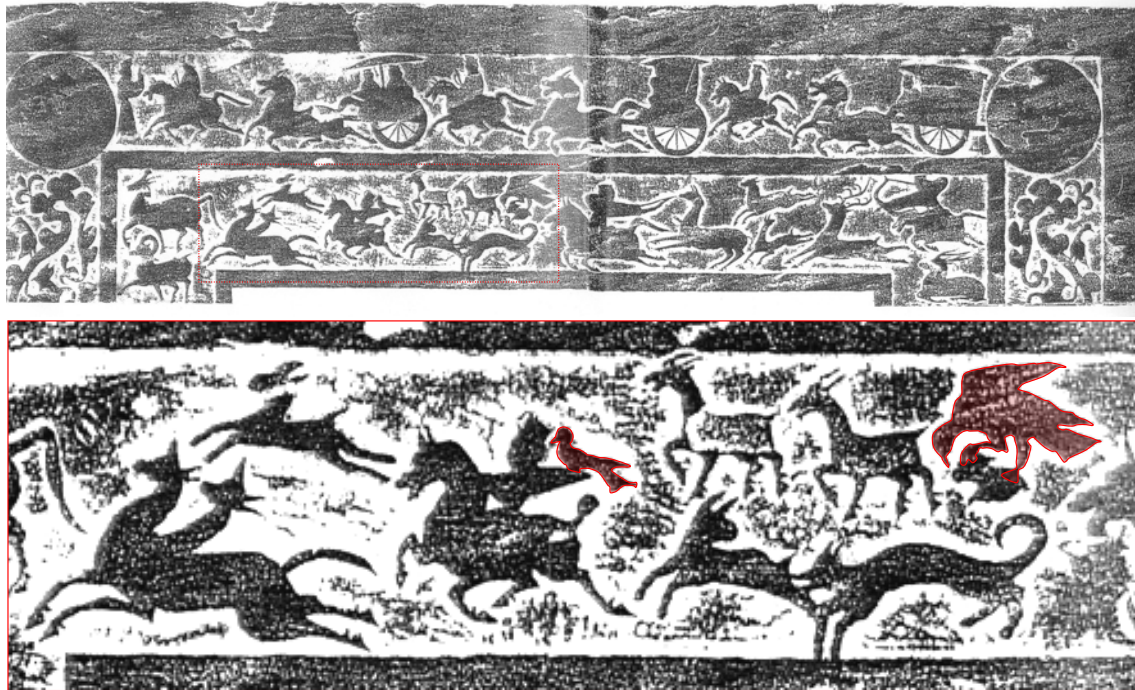


Fig.4 “Yulin Chenxing Mumenmei Huaxiang (榆林陳興墓門楣畫像)”



Fig.5 “Kongmen-Dizi, Shoulie Huaxiang (孔門弟子, 狩獵畫像)”

CASE 9: Additionally, only a falconer's left arm was excavated from Imashirozuka Burial Mound 今城塚古墳, at Takatsuki, Osaka Prefecture (fig.9) [Kyoto Shinbun 2001.09.28] (in a collection at the Takatsuki City Board of Education).

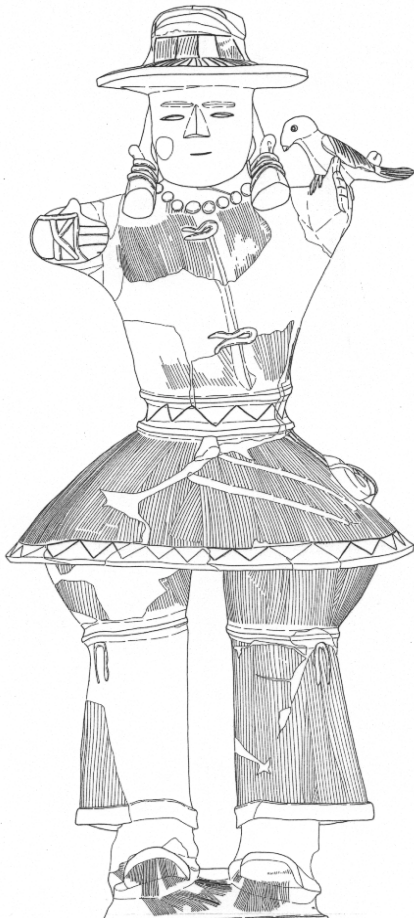


Fig.6 A figurine from Okuman-yama Kohun Mound
オクマン山古墳 (脇屋 1 号墳)



Fig.7 A figurine from Gunma Prefecture



Fig.9 A figurine from Imashirozuka Burial Mound
今城塚古墳



Fig.8 A figurine in a collection
at The Museum of Sitennou-ji

All of these falconer figures were manufactured ca. the end of 6th century. Its manner, style and details of figures were mostly in a form of perfection. As for these figures, a bell is clearly detected on the tail of bird. This is one of oldest evidences representing a bell installation in falconry culture. In addition, CASE 6 and 7 figures probably hang own feed pouch on his left belt. Incidentally, a bell would not be attached on hunting bird in nomadic pastoralist's community. According to falconer equipments, their costume and equipment are similar to other warrior representation. It is understandable that early Japanese falconry might be also deep connection with masculinity and warrior class's moral or symbol.

4. Discussion

4-1. Comparison with Eagle Falconry in Kyrgyz and Altaic Kazakhs

As regarding observations in early illustration of falconer figures in China and Japan, the context and format of falconry is apparently different from 'in situ' classical falconry by nomadic animal herders. Namely, a formation process from "nomad's eagle falconry" to "sport hunting", so to speak "royal/ recreational/ game falconry" are observed in every phase in order to fit it to sedentary world.



Fig.10 Kyrgyz falconers in hunting

As to traditional Kyrgyz and Altaic Kazakh's falconry culture, their distinctive customs and traditions are considered as a "classical mode" of modern falconry. Falconers only tame a female Golden Eagle (*Aquila chrysaetos daphanea*) and carried out inevitably on horseback (fig.10). This way is never seen in other places now. This "horse-riding eagle falconry" has been developed not for food-acquisition, but for fur-acquisition in a daily living context of animal-herding society.

Warm animal furs are essential to make ethnic cloth and head gear to overcome severe winter. Their hunting practice needs plural hunting participants, including primary falconer, secondary falconer, and beater(s) (Soma 2012e, 2013c). An Initial reason for this traditional "teamwork" style is linked to a local specialization for hunting target, primarily Red Fox (*Vulpes vulpes*) and Corsac Fox (*Vulpes corsac*).

To create sedentary socio-ecological criteria of falconry with detaching from nomadic pastoralist's ways, it should have required some reformations in its technical part of disciplines such as (1) Falconry without horseback, (2) Left-handed style, (3) Selection from small size birds of prey, (4) Introduction of hound dogs as beaters, and (5) Institutionalization and exclusivity by higher stratum.

4-2. Adaptation and Alteration to "Sedentary Royal Falconry"

(1) Falconry without Horseback:

Horse riding was not really required in sedentary falconry by reason of omit to access far hunting mountains to search preys. For example during a whole day hunting for 6 hours at Altaic Kazakhs, the total running distance reaches more than 20km, and total ascend/descend will be 450m (Soma 2013c). It becomes extreme physical burden to climb up and down with a huge Golden Eagle of which adult weight reaches 6kg (fig.11). On the other hand, in sedentary world, falconers were generally higher social stratum and eventually not necessary accessed to hunting field by own self. Due to changes in available hunting fields, horses would be perhaps abandoned from actual practice. However, horseback falconry should have continued as special techniques in some case during Later Han period, yet later completely disappeared in Japan.



Fig.11 Searching prey in craggy hunting mountains

(2) Left-Handed Style:

In connection to abundance of horse riding style, a perching hand was shifted from right-handed to left-handed style. This is because; nomadic horse riders normally ride on a horse from left side with gripping a rein with his left hand. The horse is also handled only by swing of his left hand. In addition, ancient riders hung their bow, arrow, sword and equipment on the left side of horse (Soma 2012a). Eventually, the right-handed style became a common manner in nomadic pastoralists even in Kyrgyz and Kazakh falconry now. However, the left-handed style was suitable for handling birds in a standing posture unless horse riding. And, it was gradually taken a firm hold on sedentarised falconry, even medieval Arab and Europe. According to Chinese stone carvings, both right and left hand perching style might be transitory existed dependent on some cases and hunting styles. In later period, early Japanese falconry would have adapted the left-handed style from its beginning.

(3) Selection from Small Size Birds of Prey:

One of significant changes is that Golden Eagle has never been for actual use in any sport falconry outside of 'nomad's territories'. Accipitriformes ('the short-winged'; such as Goshawk, Harrier, Sparrow hawk, etc) and falconiforms ('the long-winged'; such as Peregrine, Saker, Lanner, etc) became the most preferable bird for taming and hunting variety of quarries, game-birds and small mammals. Likewise, a visible appreciation became also important entertainment to enjoy watching their dynamic flight and chase a prey. Some potential reason for this replacement can be explained by following causes. First of all, Golden Eagle is awkward in handling due to its natural character and huge body size. Generally speaking, Golden Eagles are far from

docility for domestication and have unpredictable ardour for hunting. In addition, it is



Fig.12 Goshawk tamed by Kyrgyz falconer

not fabulous in chasing quarry due to its slow pace during initial flight and lack of quickness. Furthermore, one Golden Eagle consumes a huge amount of diets. An annual amount of diet almost equals to 6~8 sheep annually (Soma 2012d, 2012e). As a result, falconers avoided paying huge expenditure to provide necessary diets for maintenance. In fact, some contemporary Kyrgyz falconers use goshawk (fig.12) for more recreational purpose while Altaic Kazakhs in western Mongolia never

use them. In addition, they also have a volatile temper for training. Even some old falconry textbook in Britain recommended against its training (Ford 1982: 113-114). According to a skilled Kyrgyz falconer, to tame a Goshawk and Peregrine normally takes 7~10 days while Golden Eagle needs at least 30~45 days (Soma 2007, 2008). These awkward natures of Golden Eagles were not really handy to fit for sedentary falconry, and therefore would not be introduced for hunting activities anywhere else.

(4) Hound Dogs as Beaters:

Both sighthounds (fig.13) and falconry might be derived from outside China by nomadic pastoralists. Introduction of hounds as beaters or hunting assistances were well expressed in Chinese stone carvings. It could have omitted painstaking prey-search and risen encounter rate with wild animals up. One of central concerns in “royal or sport falconry” might be how to increase encounter rate with prey animals in the hunting field. In fact during a classical way of hunting operation in the Tianshan and Altai regions, almost of all efforts will be spent for searching prey. It means that cooperation with beater(s) (called “*Kagosh*” in Kazakh) is inevitable particularly in Altaic Kazakh falconry. In any case, at least one beater has to participate in hunting operation.



Fig.13 Taigan (Kyrgyz Bolzoi)

As to cooperative hunting in Altaic Kazakhs, a falconer(s) goes to the top of a mountain meanwhile beater(s) stays on the foothill first of all. Afterwards, beater(s) intentionally starts to move loudly galloping on a horseback and shouting in order to intimidate foxes and other wild animals to make them go out from their hidden places. Falconer(s) releases his eagle when target quarry can be recognized in his sight. In a local way, a chief beater makes most of forthcoming decisions and usually gives operative commands to other falconers such as movements and timing for releasing his eagle towards a target. The beater usually needs to be an experienced hunter or a

falconer. His presence is considered as, so to speak, “the brain” in hunting operation owing to govern whole harvest. Therefore, in traditional rule by Altaic Kazakh falconers, a beater is approved to obtain the initial prey prior to other participants (Soma 2013c).

In comparison, hounds, the ordinary hunting assistant in Europe, were no longer used in traditional Kyrgyz and Kazakh falconry. Atkinson (1858) also recorded in his *“Oriental and Western Siberia”* that hounds were not accompanied with falconers. However, in ancient Chinese (and medieval British) falconry, sighthounds had already played an important role same as human beaters in hunting scene since the Later Han Dynasty. Even centuries later, a combination of falconry and hunting hounds was also detected in the wall painting of Lihongrun 李重潤 grave during the Tang Dynasty (ca. the end of 7th century). The cooperation of hounds with hunting birds might be defined as an innovative idea in the sedentary falconry. Unless hound dogs or beaters cooperated, their falconry also should have become very painstaking and time-consuming only for searching prey. Consequently, collaboration with “prey-searching participants” whether human or dog was inevitable in a practice of royal falconry due to entertain as a pure game, sport, or recreation.

(5) Institutionalization and Exclusivity by Higher Stratum:

Lastly, “sedentarised falconry” reminds a presence of particular institutionalization and legalized restrictions for participation to falconry. Such social regulations had always differentiated falconry from other kinds of sports or athletic activities. In order to protect or to privatize all hunting resources such as raptors and their eggs, quarries, and hunting fields were set up by exclusive right with legal regulations. The sedentary society, such as in case of the Liao Dynasty of China (10th century), the Tokugawa Shogunate of Japan (17th~19th century), medieval Britain (16th~18th century), higher stratum exclusively regulated participation in falconry activities in order to control or to privatize hunting resources from secular community. Especially, raptor’s eyrie or potential prey birds and animals were strictly protected. If violated, those who were necessary to oblige severe punishment. Too much exclusive or limited participation should regulate extensive social permeation of falconry custom to secular communities in Asia despite there are much earlier history in China and Japan than Europe.

It is almost incapable to describe overall social and legal system about falconry in ancient China and Japan. Abandon and apathy in falconry custom was happened everywhere just before the modern period. However, contemporary Altaic Kazakh falconry in western Mongolia gives some idea for sustainable preservation for future. One of decisive reasons of century-lasting falconry custom in this region could be explained by an absence of strict social regulations to join in (Soma 2012c, 2012e). In Altaic Kazakh’s community, anybody can capture and own their eagle, and then start hunting without any restrictions. Rather, according to Kazakh masculinity, a participation in eagle-ownership and fox-hunting was a sort of initiation to adulthood. In addition, arts and techniques of falconry are widely shared with community members, elders, even falconer’s wives and children in nowadays. Open knowledge and free participation in falconry custom should be a remarkable trait in pastoralist’s society contrary to severe exclusiveness in sedentary world.

5. Conclusion

As a conclusion, this paper carried out ethnoarchaeological research and analysis in early falconry custom in ancient China and Japan. So far, only 9 examples related to falconer figures were analyzed in this paper. But, it was somehow able to approach to the beginning of ancient East Asian falconry that probably started in China during the Later Han Dynasty (A.D. 25~220), and later in Japan during the middle of Kofun Period (ca. the end of 6th century). This origin might be 600~700 years earlier than Europe.

In comparison to ethnographic facts of “classical eagle falconry” in Kyrgyz and Altaic Kazakh communities, formative adaptations were inevitable in order to fit sedentary livelihood in accompany with some technical reformations in (1) Falconry without horseback, (2) Left-handed style, (3) Selection from small size birds of prey, (4) Introduction of hound dogs as beaters, and (5) Institutionalization and exclusivity by higher stratum. Therefore well known ‘game or sports’ falconry style in nowadays has brought to perfection with some deconstruction from nomadic pastoralist’s way of eagle falconry. It could be regarded as efforts by people in sedentary world to fitness onto own society and environment. Therefore, wide range adaptation of falconry culture in sedentary Asia is recognizable not only as an evidence of deep human-raptor interaction for centuries, but also as a cosmopolitan cultural heritage in East Asia.

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Figures

- (1) “*Shòuliè, Gōngniú-Dìdǒu Huaxiang* (狩獵, 公牛抵鬥畫像)” [A.D. 89-189]
excavated in 1950’s at Shandong Province 山東省鄒城市郭里鄉路屯村,
height: 70cm, width: 226cm, in a collection at Zouchengmeng-miao 鄒城孟廟.
- (2) “*Shòuliè, Chēqíchūxing Huaxiang* (狩獵, 車騎出行畫像)” [A.D. 89-189]
excavated at Shandong Province 山東省微山縣兩城鎮出土,
height: 53.5cm, width: 180cm, in a collection at 曲阜孔廟.
- (3) “*Chūxing, Xiànfú, Lèwǔ Huaxiang* (出行, 獻俘, 樂舞畫像)” [A.D. 89-189]
- (4) “*Yúlín Chénxīng Mùménméi Huaxiang* (榆林陳興墓門楣畫像)” [A.D. 25-220]
excavated in 1992 at Shaanxi Province 陝西省榆林市上監灣鄉陳興莊,
height: 35cm, width: 186cm, in a collection at Yulin City Bureau of Hongshixia
Cultural Relics 榆林市紅石峽文物管理局.
- (5) “*Kongmen-Dizi, Shoulie Huaxiang* (孔門弟子, 狩獵畫像)” [A.D. 25-220]
excavated in 1999 at Shaanxi Province 陝西省神木縣大保當鄉,
height: 39cm, width: 205cm, in a collection at Archaeological Institute of Shaanxi
Province 陝西省考古研究所.

- (6) *A falconer haniwa figurine* [ca. 6th century]
From Okuman-yama Kohun Mound オクマン山古墳 (脇屋 1 号墳), in a collection at Ota City Board of Education 太田市教育委員会.
- (7) *A falconer haniwa figurine* [6th century]
(Redrawn from fig.6 in Gumma-ken Ota-shi Kyoikuiinkai 1999)
From Huchina, Sakai-cho, Sawa-gun, Gunma Prefecture in a collection at The Museum of Yamatobunkakan 大和文華館.
- (8) *A falconer haniwa figurine* [6th century]
(Redrawn from fig.7 in Gumma-ken Ota-shi Kyoikuiinkai 1999)
From unknown site in a collection at The Museum of Sitennou-ji 四天王寺宝物館.
- (9) *A falconer's left arm* [6th century]
From Imashirozuka Burial Mound 今城塚古墳 in a collection at Takatsuki City Board of Education 高槻市教育委員会.

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